

REMARKS

Further to the Response to Non-Final Office Action filed on March 4, 2008, Applicants submit the following supplemental amendments and remarks for the Examiner's consideration. Claims 1-7 are currently pending in this application. Claims 5-6 have been withdrawn from consideration by the Examiner. No new matter has been added by way of the present amendment. For instance, new claim 7 is supported by the Specification at, for example, page 23, lines 17-20. Accordingly, no new matter has been added.

In view of the amendments and remarks herein, and in further view of the remarks filed on March 4, 2008, Applicants respectfully request that the Examiner withdraw all outstanding rejections and allow the currently pending claims.

Issues Under 35 U.S.C. § 102(b)

Claims 1-4 stand rejected under 35 U.S.C. §102(b) as anticipated by Nagou et al. (U.S. 4,791,144) (hereinafter Nagou '144). Applicants respectfully traverse.

The present invention is directed, *inter alia*, to a porous film with chemical resistance, comprising a film base produced by a phase conversion method in which mixtures containing the polymers are cast as films and then introduced to solidifying liquids, and a chemical-resistant polymeric compound covering the porous film base, wherein the porous film comprises a multiplicity of communicating micropores, and wherein the micropores have an average pore size of 0.01 to 10 μm (*see*, for example, claim 1). Applicants respectfully submit that the structure of the present porous film is different from the structure of Nagou's film. Thus, the teachings of Nagou '144 do not anticipate or render the present invention obvious.

One of the structural characteristics of the present porous film is the presence of a chemical-resistant polymeric compound covering the porous film base. The film of Nagou '144 is a microporous polypropylene film prepared by melt-forming into a sheet or film a mixture comprising a polypropylene homopolymer (*see* column 2, lines 53-58 in Nagou '144). The microporous film of Nagou '144 is not covered with any compound.

Applicants have discovered that, by covering a porous film with a polymer having excellent chemical resistance, a porous film exhibiting superior chemical resistance and containing a multiplicity of communicating micropores can be obtained. Nagou '144 does not disclose or suggest a porous film having excellent chemical resistance, or containing a multiplicity of communicating micropores. Further, Nagou '144 does not teach a porous film produced by covering a porous film base with a polymer having excellent chemical resistance.

As discussed in the present Specification, polymers such as amide-imide polymers, imide polymers, sulfone polymers, fluoro polymers, and olefinic polymers are used in porous films. Porous films comprising such materials are produced, for example, by a phase conversion method in which mixtures containing the polymers are cast as films and then introduced to solidifying liquids. The polymer solution subjected to flow casting is preferably a mixed solution containing, for example, 8 to 25 percent by weight of a polymeric component as a material constituting porous films, 10 to 50 percent by weight of a water-soluble polymer, 0 to 10 percent by weight of water, and 30 to 82 percent by weight of a water-soluble polar solvent. The water-soluble polymer can be any one of those listed in the production of the preferred porous film bases. In order to obtain satisfactory porous films, the molecular weights of water-soluble polymers are preferably 1000 or more, more preferably 5000 or more, and particularly preferably 1×10^4 or more (e.g., about 1×10^4

to about 20×10^4). Moreover, fillers are **not necessary** (emphasis added) in the present porous film.

In stark contrast, Nagou '144 discloses the following (see column 5, lines 7 through column 6, line 8):

"In the present invention, it is indispensable that the microporous polypropylene film should not only have the above-mentioned properties but also be stretched. . . this uniformity is produced by stretching a polypropylene film containing a large amount of a filler. In order to produce uniform pores, not only combined use of an additive for uniformly dispersing the filler in polypropylene but also the stretching ratio is important. . . In the present invention, by stretching the filler-containing polypropylene film, fine pores are formed in the periphery of the filler. . . Selection of specific kinds of polypropylene, filler and additive, specific combination of these ingredients and specific incorporation ratios of these ingredients are indispensable for the preparation of the microporous polypropylene film of the present invention... (b) 80 to 20% by weight of at least one siliceous filler selected from the group consisting of silica, silicates and inorganic composites thereof ...".

Thus, a filler is *indispensable* in Nagou's porous film. However, as noted above, a filler is not needed in the present porous film.

Moreover, the pure-water permeation rate of the instant porous film is preferably 3.3×10^{-9} to 1.1×10^{-7} m.sec⁻¹.Pa⁻¹ [i.e., 20 to 700 L/ (m².min.atm)] (see page 23, lines 17-19 of the present Specification). In contrast, the moisture permeability of the microporous polypropylene film of Nagou '144 is generally in the range of 1,000 to 5,000 g/m² 24 hours (see Nagou '144 at column 4, lines 18-20).

Clearly, the structure of the present porous film is very different from the structure of the porous film disclosed by Nagou '144. Accordingly, the film of Nagou '144 does not anticipate the novel porous film of the present invention.

Reconsideration and withdrawal of this rejection are thus respectfully requested.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and objections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

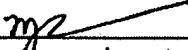
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact MaryAnne Armstrong, Reg. No. 40,069 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

Dated:

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Respectfully submitted,

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